REMARKS

Claims 11 – 20 remain in this application. Reconsideration of this application is respectfully requested.

In the Office Action, claims 11 – 20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Molitor (U.S. Patent No. 4, 407,266) in view of Hepner (U.S. Patent No. 4,235,220). Applicant respectfully traverses this rejection.

Applicant maintains all of its previous arguments with respect to the patentability of the claims over any possible combination of Molitor and Hepner.

Further, with respect to Molitor, a significant difference between Molitor and the presently claimed invention is the use of incoming air (makeup air).

In this regard, the heat exchanger of Molitor is for warming the makeup air. If there is extra warm air in the exhaust duct, it is led to the intake duct for warming the makeup air. Also, when the cooking equipment of Molitor is started, warm/heated makeup air is led via a bypass duct for heating and therefore increasing the temperature of the separator. As stated in Molitor in column 5, line 61 – column 6, line 37 (with emphasis added): "For illustration purposes, assume that **WHEN** all of **the cooking equipment is operating at full heating capacity** and **the maximum amount of heat is being exhausted** through the water bath W and the gases passed on through the exhaust duct 12, a temperature of 200° F. at the throat between lip 15 and baffle 17 of FIG. 1 is produced, so that the exhaust temperature at control thermometer 42 will be on the order of 90° F. In this condition, **NO MAKEUP AIR WILL BE PASSED THROUGH DUCT D**. However, assume that the throat temperature between lip 15 and baffle 17 drops to 150° F. and the exhaust temperature at control **thermometer 42 then drops to 80° F**. Under such circumstances, **the amount of makeup air bypassed through duct D will be increased**, until the exhaust temperature remains steady. Similarly, assume that the throat temperature is reduced to 100° F. and the exhaust temperature drops to between 70° F. and 75° F., the amount of makeup air will be further decreased until the exhaust temperature again becomes steady. Further assume that the room is at a temperature of 70° F. when the cooking equipment is off and the exhaust fans are first turned on and that the exhaust temperature is then between 65° F. and 68° F., the maximum amount of air is

bypassed through the duct D. Thus, when the exhaust and intake fans are first turned on, which is necessary **prior to starting the cooking equipment**, the controls are set so that the damper 68 is fully open and **the amount of bypass air flowing through duct D is at a maximum**. However, as the **cooking equipment heats up** and the temperature at control thermometer 42 increases, the damper 68 **is closed in increments until, when the cooking equipment is producing a maximum** temperature at control thermometer 42, the **damper 68 will be fully closed**. Intermediate positions of damper 68 will, of course, depend on the exhaust temperatures. It will be evident, when the exhaust of control thermometer 42 stabilizes, the amount of bypass air should remain substantially constant. The control thermometer 43 may be utilized to reduce fluctuations produced by control thermometer 42. Thus, the control thermometer 43 may be utilized to override the control thermometer 42, in the event that a stable temperature has been reached at control thermometer 43 but not yet at control thermometer 42."

In other words, Molitor discloses that the warmer the separator, the better. In contrast, the presently claimed invention is the exact opposite; it is the aim of the presently claimed invention to get the separator as cold as possible.

In further regards to Molitor, Molitor may provide some cooling of air, but the cooling is for the makeup air rather than exhaust air travelling through a duct to a separator. The portion of Molitor referred to in the Office Action states: ". . . heat exchanger which produces a heated or cooled liquid for heat exchange with incoming air." Also, column 3 lines 4 – 5 of Molitor discloses ". . . heat exchangers which heat or cool makeup air." The main heat exchanger H' of Molitor heats the water W, and the other heat exchangers are for heating or cooling the makeup air. Yet, there is no heat exchanger that provides cooling of the separator itself. Of the heat exchangers, at least the primary exchanger H' is not in the intake duct. Also, H' is a liquid-liquid-exchanger, so it is not capable of cooling intake air. In sum, if Molitor provides any air cooling, it is only cooling of the makeup air which is directed towards the user, i.e., into the room. Also, none of the heat exchangers can cool the separator, because when the cooking equipment under the hood is heated properly, the damper 68 is fully closed. In this case, there is no air flow in the bypass duct D (see column

6, lines 25 – 27). Again, the hot air from the hood is used for heating the makeup air in Molitor, while according to the present invention the intake air is used for cooling the grease separator.

Turning to Hepner, Hepner fails to remedy the deficiencies of Molitor. Hepner discloses three filters and the last filter (a charcoal filter) is heatable. **But Hepner also fails to disclose cooling of the separator with intake air.** In one embodiment there is a cooling coil, but it is clearly after the separators (see column 6, lines 56 – 63 and FIG. 4). The air cleaned by the separators is circulated from the hood and cooled before being reintroduced back to the room. Further, in this embodiment the optional duct 84 is a bypass duct after the separator for exhausting byproducts of the filter regeneration process, and the duct 84 does not allow any outside air to enter the system. The duct 84 is used only when the charcoal filter is regenerated (see column 7, lines 18 – 35 and FIG. 4).

In the presently claimed invention, there is one primary separator which is cooled by the intake makeup air. Both Molitor and Hepner fail to disclose or fairly suggest such an arrangement.

Moreover, one of ordinary skill in the art would not combine the structures of Molitor and Hepner, or alternatively would not arrive at the presently claimed invention from the disclosures of Molitor and Hepner. Even if it is assumed that Molitor discloses two separate devices, the disclosure of Molitor teaches away from the present invention. Molitor primarily heats the makeup air and secondarily the separator, but Molitor does not cool the separator. The disclosure of Hepner also teaches away from the present invention, because Hepner discloses heating the filter. Further, one of ordinary skill would not combine these two features, i.e. the feature of temperature adjustment in Molitor with a separator in the duct as in Hepner. Molitor places the separator in the hood close to cooking equipment and heats the separator as needed, but Hepner is silent about adjusting the air temperature before the separator.

Applicant also notes that the corresponding European application has been granted (see EP 1 702 180 B1), as well as the corresponding Norwegian, Russian, and Chinese applications. Also, the corresponding Japanese application has only been rejected due to

informalities and the claims have been found allowable over the cited references (note that JP 58-501141 is the Japanese counterpart of Molitor).

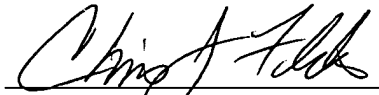
For all of these reasons, claim 11 is patentable over any possible combination of Molitor and Hepner. Claims 12 – 20, depending from claim 11, are also patentable over Molitor and Hepner. Accordingly, applicant respectfully requests that the Section 103(a) rejection of claims 11 – 20 as being unpatentable over Molitor in view of Hepner be withdrawn.

This request for reconsideration is felt to be fully responsive to the comments and suggestions of the examiner and to place this application in condition for allowance. Favorable action is requested.

Respectfully submitted,

Antero Heinonen

Fildes & Outland, P.C.



Christopher J. Fildes, Attorney
Registration No. 32,132
20916 Mack Avenue, Suite 2
Grosse Pointe Woods, MI 48236
(313) 885-1500